REMARKS

Applicant replies to the Office Action dated January 17, 2007 within three months. Claims 1-4 were pending in the application and the Examiner rejects claims 1-4. Reconsideration of this application is respectfully requested.

The Examiner rejects claims 1-4 under 35 U.S.C. § 112 as failing to comply with the enablement requirement. Applicant respectfully traverses this rejection.

The Examiner asserts that claims 1-4 are rejected as failing to comply with the enablement requirement because the limitation, "resistance value detected between two electrically separated patterns" recited in claim 1 is unclear. In particular, the Examiner asserts the specification describes the "pattern" as both a tangible object and a detected value, therefore, the meaning of the "pattern" recited in claim 1 is unclear.

Applicant asserts that the Examiner's main concern is in regards to paragraph [0069] on page 15 of the specification. In particular, such portion of the specification discloses that:

> "As shown in Figure 1, a detected pattern 72 is connected to a liquid detection section 62 through the WET terminal 28. A B+ input/output pattern 74 is provided adjacent to the detected pattern 72 ... The detected pattern 72 and the B+ input/output pattern 74 are in close proximity so that the distance therebetween is about 0.1 mm, but are electrically separated".

The Examiner alleges the, "detected pattern 72" refers to a detected value (e.g. detected patterned values) and the "B+ input/output pattern 74" refers to a tangible object (e.g. port or sensor). Therefore, the Examiner alleges that the specification describes the "pattern" as both a tangible object and a detected value, thus, the meaning of "pattern" in the specification and the claims is unclear.

Applicant respectfully asserts that one skilled in the art would clearly understand the limitation, "resistance value detected between two electrically separated patterns," as recited in claim 1. In particular, claim 1 is directed towards a circuit and the term "pattern" in circuits is well-known to one skilled in the art. In the present invention, the "detected pattern 72" (hereinafter pattern 72) and the "B+ input/output pattern 74" (hereinafter pattern 74) are both patterns, which are tangible objects.

In particular, as clearly illustrated in, for example, Figures 1 and 4 of the present specification, pattern 72 and pattern 74 are patterns. For example, the specification discloses that

pattern 72 and pattern 74 are in close proximity but are electrically separated. Moreover, the specification clearly explains that in a normal state, the impedance (resistance value) between pattern 72 and pattern 74 is a value approaching infinity. However, the attachment of liquid 76 on pattern 72 and 74 as illustrated in Figure 1 reduces the impedance (resistance value) between pattern 72 and pattern 74 to several tens to several hundreds of kilo-ohms (e.g., paragraphs [0069]-[0070] on pages 15 and 16).

Therefore, one of ordinary skill in the art would clearly understand that both pattern 72 and pattern 74 refer to tangible objects, not values. This is further supported by the specification which discloses an example that pattern 72 and pattern 74 can be readily formed as conductive patterns (e.g., paragraph [0070]). Thus, contrary to the Examiner's assertion, one skilled in the art would not interpret either pattern 72 nor pattern 74 to be a value. Accordingly, the term "pattern" described in the specification and recited in the claims are both clear and the rejection on claims 1-4 should be withdrawn.

Dependent claims 2-4 variously depend from independent claim 1, so claims 2-4 meet the enablement requirement for the same reasons as set forth above.

The Examiner rejects claims 1 and 2 under 35 U.S.C. § 102(e) as being anticipated by Takano et al., U.S. Patent No. 6,114,839 ("Takano"). The Examiner also rejects claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Takano et al., U.S. Patent No. 6,114,839 ("Takano") in view of Darmawaskita, U.S. Patent No. 6,184,659 ("Darmawaskita"). Applicant respectfully traverses these rejections.

The Examiner asserts that it is unclear what the "pattern" is and that Takano teaches determining a temperature or resistance between two separate terminals, terminal 2d and terminal 2e. Applicant respectfully asserts that, as set forth above with respect to the enablement arguments, the meaning of "pattern" is clear.

Applicant also respectfully asserts that Takano does not disclose or suggest that "the liquid detection section controls the control section based on an impedance or resistance value detected between two electrically separated patterns," (emphasis added) as recited in independent claim 1. The Examiner asserts that terminal 2d and terminal 2e (element 2e refers to secondary batteries) as disclosed by Takano somehow correspond to the "two electrically separated patterns" recited in claim 1. In particular, the Examiner states that Takano teaches "determining a temperature, or resistance between two separate terminals, terminal 2d and terminal 2e (see

Takano, column 3 lines 32-45)" (page 6 of Office Action). However, Applicant asserts that the Examiner only states that terminal 2d and 2e are two separate terminals, but the Examiner does not specifically state that they are two electrically separated terminals. Applicant asserts that Tanaka does not disclose or suggest the "two electrically separated patterns" and requests that the Examiner cite to a specific page and line number in Tanaka to support such an assertion, if the Examiner maintains this rejection.

Applicant also asserts that Takano does not disclose or suggest that terminals 2d and 2e are electrically separated. In particular, Takano may disclose two separate terminals 2d and 2e as alleged by the Examiner. However, as clearly illustrated in Figure 1, Takano clearly shows that the secondary batteries 2e are electrically connected to the terminal 2d via thermistor 2a (e.g., col. 3, lines 36-38 of Takano). Moreover, Applicants assert that in the detection of leakage from battery 2e, Tanaka discloses that there is a short between the terminals 2b and 2d (e.g., col. 8, lines 7-10 of Tanaka). **Significantly, if terminals 2d and 2e are electrically separated, a short would not exist between terminals 2d and 2e. Thus, the invention as disclosed by Takano cannot function as intended to detect leakage from battery 2e.** Thus, it is clear that terminal 2b, batteries 2e, terminal 2c, thermistor 2a and terminal 2d are electrically connected (e.g., col. 3, lines 32-45 and Figure 1 of Takano). Accordingly, Takano does not disclose or suggest that "the liquid detection section controls the control section based on an impedance or resistance value detected between two electrically separated patterns," (emphasis added) as recited in claim 1.

As illustrated in, for example, Figures 1 and 4 of the present invention, the liquid detection section 62 detects infiltration or generation of liquid based on an impedance or resistance value detected between two electrically separated patterns 72 and 76. For example, according to the present invention, pattern 76 is connected to the B+ terminal which is connected to the secondary battery 10, and pattern 72 is connected to the WET terminal 28 which is connected to the liquid detection section 62. Moreover, the attachment of liquid 76 on the patterns 72 and 76 as illustrated in Figure 1 reduces the impedance (resistance) between the two patterns 72 and 76.

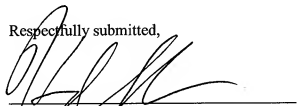
In contrast, Takano fails to disclose the two electrically separated patterns 72 and 76 as discussed above. Darmawaskita has not been found to make up for the deficiencies of Tanaka to arrive at all of the elements of claim 1. Therefore, neither Takano, Darmawaskita, nor any

combination thereof, disclose or suggest at least that "the liquid detection section controls the control section based on an impedance or resistance value detected between two electrically separated patterns," (emphasis added) as recited in independent claim 1.

Dependent claims 2-4 variously depend from independent claim 1, so claims 2-4 are differentiated from the cited references for the same reasons as set forth above, in addition to their own respective features.

In view of the above remarks, Applicant respectfully submits that all pending claims properly set forth that which Applicant regards as its invention and are allowable over the cited references. Accordingly, Applicant respectfully requests allowance of the pending claims. The Examiner is invited to telephone the undersigned at the Examiner's convenience, if that would help further prosecution of the subject Application. Applicant authorizes and respectfully requests that any fees due be charged to Deposit Account No. 19-2814.

Respectfully submitted,



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